

**510(k) Summary****APR 03 2014**

In accordance with Title 21 of the Code of Federal Regulations, Part 807, and in particular 21 CFR §807.92, the following summary of information is provided:

**A. Submitted by:**

Cynthia Adams  
 Regulatory Affairs Associate  
 NuVasive, Incorporated  
 7475 Lusk Blvd.  
 San Diego, California 92121  
 Telephone: (858) 909-1800

Date Prepared: March 31, 2014

**B. Device Name**

Trade or Proprietary Name:	NuVasive® CoRoent® Small Interbody System
Common or Usual Name:	Intervertebral Body Fusion Device
Classification Name:	Intervertebral Body Fusion Device with Bone Graft, cervical Spinal Vertebral Body Replacement Device

Device Class:	Class II
Classification:	21 CFR § 888.3060, § 888.3080
Product Code:	MQP, ODP

**C. Predicate Devices**

The subject *CoRoent Small Interbody System* is substantially equivalent to the following predicate devices: *NuVasive CoRoent System* (K081611), *Maxim Surgical X-Treme Interbody Fusion System* (K123206), and *Spinal USA Anterior Cervical Interbody Fusion Device* (K083118).

**D. Device Description**

The *NuVasive CoRoent Small Interbody System* is manufactured from PEEK-Optima® LT-1 conforming to ASTM F2026, and titanium alloy conforming to ASTM F136 and ISO 5832-3 or tantalum conforming to conforming to ASTM F560 or ISO 13782. The implants are available in a variety of different shapes and sizes to suit the individual pathology and anatomical conditions of the patient.

**E. Intended Use*****Intervertebral Body Fusion***

The NuVasive CoRoent Small Interbody System is indicated for intervertebral body fusion of the spine in skeletally mature patients. The CoRoent Small Interbody System is intended for use for anterior cervical interbody fusion in patients with cervical degenerative disc disease (DDD) at one level from C2 - T1. The System is intended to be used with supplemental fixation; the CoRoent SHL interbody device is required to be used with an anterior cervical plate as the form of supplemental fixation. The System is designed for use with autogenous bone graft to facilitate fusion. The cervical devices are to be used in patients who have had at least six weeks of non-operative treatment.

***Partial Vertebral Body Replacement***

The NuVasive CoRoent Small Interbody System may also be used as a partial vertebral body replacement device indicated for use in the thoracolumbar spine (T1 to L5) to replace a diseased or damaged vertebral body caused by tumor or fracture, to restore height of a collapsed vertebral body, and to achieve decompression of the spinal cord and neural tissues. The System is intended to be used with supplemental internal spinal fixation systems that are cleared by the FDA for use in the thoracic and lumbar spine. Allograft or autograft material may be used at the surgeon's discretion.

**F. Technological Characteristics**

As was established in this submission, the subject *CoRoent Small Interbody System* is substantially equivalent to other predicate devices cleared by the FDA for commercial distribution in the United States. The subject device was shown to be substantially equivalent and have the same technological characteristics to its predicate devices through comparison in areas including design, intended use, material composition, and function. This device does not contain software or electrical equipment.

**G. Performance Data**

Nonclinical testing was performed to demonstrate that the subject *CoRoent Small Interbody System* is substantially equivalent to other predicate devices. The following testing/analysis was performed:

- Static and dynamic axial compression per ASTM F2077
- Static and dynamic torsion per ASTM F2077
- Subsidence Analysis per ASTM F2267
- Clinical literature review

The results of these studies demonstrate that the subject *CoRoent Small Interbody System* meets or exceeds the performance of the predicate device, and the subject device was therefore found to be substantially equivalent. No clinical studies were conducted.

**H. Conclusions**

Based on the indications for use, technological characteristics, and comparison to predicate devices, the subject *CoRoent Small Interbody System* has been shown to be substantially equivalent to legally marketed predicate devices for its intended use.

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center – WO66-G609  
Silver Spring, MD 20993-0002

April 3, 2014

NuVasive, Incorporated  
Ms. Cynthia Adams  
Regulatory Affairs Associate  
7475 Lusk Boulevard  
San Diego, California 92121

Re: K140003

Trade/Device Name: NuVasive® CoRoent® Small Interbody System  
Regulation Number: 21 CFR 888.3080  
Regulation Name: Intervertebral body fusion device  
Regulatory Class: Class II  
Product Code: ODP, MQP  
Dated: March 12, 2014  
Received: March 13, 2014

Dear Ms. Adams:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA).

You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Ronald P. Jean -S for

Mark N. Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)  
K140003

Device Name  
NuVasive® CoRoent® Small Interbody System

### Indications for Use (Describe) Intervertebral Body Fusion

The NuVasive CoRoent Small Interbody System is indicated for intervertebral body fusion of the spine in skeletally mature patients. The CoRoent Small Interbody System is intended for use for anterior cervical interbody fusion in patients with cervical degenerative disc disease (DDD) at one level from C2 - T1. The System is intended to be used with supplemental fixation; the CoRoent SHL interbody device is required to be used with an anterior cervical plate as the form of supplemental fixation. The System is designed for use with autogenous bone graft to facilitate fusion. The cervical devices are to be used in patients who have had at least six weeks of non-operative treatment.

### Partial Vertebral Body Replacement

The NuVasive CoRoent Small Interbody System may also be used as a partial vertebral body replacement device indicated for use in the thoracolumbar spine (T1 to L5) to replace a diseased or damaged vertebral body caused by tumor or fracture, to restore height of a collapsed vertebral body, and to achieve decompression of the spinal cord and neural tissues. The System is intended to be used with supplemental internal spinal fixation systems that are cleared by the FDA for use in the thoracic and lumbar spine. Allograft or autograft material may be used at the surgeon's discretion.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

**PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.**

**FOR FDA USE ONLY**

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

**Anton E. Dmitriev, PhD**

**Division of Orthopedic Devices**

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